

STATE OF MICHIGAN  
STATE OFFICE OF ADMINISTRATIVE HEARINGS AND RULES  
FOR THE MICHIGAN PUBLIC SERVICE COMMISSION

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In the matter of the application of ) <b>Michigan Gas Utilities Corporation</b> for ) accounting approval of depreciation ) <u>rates and practices.</u> )	Case No. U-15963
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**NOTICE OF PROPOSAL FOR DECISION**

The attached Proposal for Decision is being issued and served on all parties of record in the above matter on August 6, 2010.

Exceptions, if any, must be filed with the Michigan Public Service Commission, P.O. Box 30221, 6545 Mercantile Way, Lansing, Michigan 48909, and served on all other parties of record on or before August 27, 2010, or within such further period as may be authorized for filing exceptions. If exceptions are filed, replies thereto may be filed on or before September 13, 2010. **The Commission has selected this case for participation in its Paperless Electronic Filings Program. No paper documents will be required to be filed in this case.**

At the expiration of the period for filing of exceptions, an Order of the Commission will be issued in conformity with the attached Proposal for Decision and will become effective unless exceptions are filed seasonably or unless the Proposal for

Decision is reviewed by action of the Commission. To be seasonably filed, exceptions must reach the Commission on or before the date they are due.

STATE OFFICE OF ADMINISTRATIVE  
HEARINGS AND RULES  
For the Michigan Public Service Commission

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Sharon L. Feldman  
Administrative Law Judge

August 6, 2010  
Lansing, Michigan  
dmp

STATE OF MICHIGAN  
STATE OFFICE OF ADMINISTRATIVE HEARINGS AND RULES  
FOR THE MICHIGAN PUBLIC SERVICE COMMISSION

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**PROPOSAL FOR DECISION**

**I.**

**PROCEDURAL HISTORY**

MGU filed its application for accounting approval of its proposed depreciation rates and practices on July 30, 2009, in response to the Commission's June 26, 2007 order in Case No. U-14292.

The application was accompanied by the testimony and exhibits of Dane A. Watson, owner and head of Alliance Consulting Group. MGU, Staff and the Attorney General attended the September 17, 2009 prehearing conference, at which the Attorney General was granted intervention and a schedule was established. Following the established schedule, Staff filed the testimony of two witnesses, Staff members Daniel M. Birkam and Ronald Radke. On April 30, 2010, MGU filed rebuttal testimony from Mr. Watson and from Paul C Baird, Manager of Property Accounting for Integrys Business Support LLC. At the May 18, 2010 hearing, the testimony of all witnesses was bound into the record by agreement of the parties, without the need for the witnesses to

appear. The testimony is contained in 114 transcript pages, and the record also contains 7 exhibits. The parties filed briefs and reply briefs in accordance with the established schedule on June 17, 2009 and June 29, 2009.

A review of the testimony and briefs reveals three principal areas of dispute. One area of dispute involves the appropriate remaining life estimates to use in determining depreciation rates for 14 accounts. The remaining life estimates for these accounts are discussed in section II below.

Another area involves the appropriate treatment of costs associated with the retirement of assets, or “net salvage” costs. The Commission called for an analysis of alternative treatments in Case No. U-14292. While Staff and MGU recommend that the Commission retain the traditional method for determining net salvage, consistent with the Commission’s recent decisions, the Attorney General urges the Commission to reconsider its decision in these cases and to adopt a method of accounting for costs associated with asset retirements based on FAS 143. In addition, while Staff and MGU agree on the method, they differ as to the net salvage rates that should be set for 7 of the company’s accounts. The choice of method and the dispute over net salvage rates using the traditional method are discussed in section III below.

The third area of dispute involves the company’s request to adopt amortization for certain General Plant accounts. As part of its request, MGU proposes to amortize and collect over a five-year period a \$2.5 million reserve deficiency. Staff and the Attorney General oppose the company’s request. This is addressed in section IV below.

Additionally, Staff's recommendation that the Commission adopt standard retirement units for the utilities, which has been presented in previous cases and which appears to be unopposed, is addressed in section V below.

## II.

### **REMAINING LIFE ESTIMATES**

Mr. Watson presented MGU's depreciation study, Exhibit A-1. Mr. Watson explained in his testimony and in the study that MGU is continuing to use the "straight-line Average Life Group remaining-life depreciation system" to determine annual depreciation expense:

In this system, the annual depreciation expense for each account was computed by dividing the original cost of the asset, less actual (or allocated for Gathering Plant) depreciation reserve, less estimated net salvage, by its respective average life group remaining life. The resulting annual accrual amounts of all depreciable property within an account were accumulated, and the total was divided by the original cost of all depreciable property within the account to determine the depreciation rate. The calculated remaining lives and annual depreciation accrual rates were based on the attained age of the plant in service, the estimated service life, and the net salvage characteristics of each depreciable group.<sup>1</sup>

He testified that the primary forces affecting depreciation expense in his study were overall slightly more negative salvage rates offset by longer lives of assets.

Mr. Watson's recommendations for changes to the average service life remaining for each account were based in part on a "Simulated Plant Record" (SPR) analysis, which is explained in Exhibit A-1. In the SPR analysis, various survivor curves, which

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<sup>1</sup> See Tr 19.

reflecting the percent of assets surviving at any given age, are fit to available data for each asset group or account. The survivor curves used in the analysis are referred to as the “Iowa curves”, which in their various forms capture not only the average life associated with an asset group, but the expected distribution of asset lives around the average life. The shape and dispersion of the curves provide additional information used to estimate the remaining life for a given asset group, in addition to the average life.

In evaluating the various curves fit to each set of historical plant data, the study relied on two measurements, the “Conformance Index” (CI), and the “Retirement Experience Index” (REI). The CI is a measure of goodness of fit that reflects the sum of the square differences between the simulated (curve-based) plant balances and the actual plant balances in the data set. The REI gives a measure of the maturity of the account as reflected in the estimated curve.<sup>2</sup> As indicated in the study: “Although one statistic is not necessarily superior over the others, the conformance index is the one many analysts use in depreciation studies. The depreciation analyst should carefully weigh the data from REIs to ensure that a mature curve is being used to estimate life.”<sup>3</sup>

MGU’s recommended average life and curve shape for each account studied, along with the remaining life for that account, are shown in Appendix A to Exhibit A-1. The simulated plant balances derived from the company’s average life and curve choice for each account are also shown graphically, in comparison to the actual plant balances, in Exhibit A-1.

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<sup>2</sup> Pursuant to the ALJ’s request at the hearing, the parties provided additional information regarding the REI, but they did not file it for the record. To avoid any confusion on this topic, the document supplied by the parties in response to this request is Attachment B to this PFD.

<sup>3</sup> See Exhibit A-1, page 11 (report page 8).

Neither Staff nor the Attorney General challenge the basic approach used by the company to determine the remaining lives for each account. Staff performed its own depreciation study using this same approach. Mr. Radke, who performed Staff's study, testified: "The straight-line, broad life group, remaining life technique was used to calculate the annual depreciation and reserves over the plant history to date. This system utilizes Iowa curves to calculate plant lives."<sup>4</sup>

Both analysts, Mr. Watson and Mr. Radke, recognized that judgment is an important component of the analysis.<sup>5</sup> Staff accepted the company's judgment for many of the accounts where the plant balances showed poor fits:

Several MGU plant accounts over their life history showed poor simulated plant balance results. Most of these poor fits are for smaller accounts. For these accounts, Staff accepts the Company proposed factors which are based mainly on judgment.<sup>6</sup>

For the remaining accounts, 14 in all, Mr. Radke testified that Staff's study showed considerably longer lives than the company recommended, and Staff's proposed remaining lives reflected the longer lives shown by its study, "but on a moderate basis."<sup>7</sup> Staff's proposed changes to the average life, curve choice and remaining life are shown in Exhibit S-1, schedules 1 and 3.

Mr. Watson provided rebuttal testimony challenging Staff's proposed average life and curve choices for the 14 accounts, arguing that Staff's choices result in unreasonable estimates of remaining life. His Exhibit A-5 contains his SPR workpapers

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<sup>4</sup> See Tr 81.

<sup>5</sup> See Exhibit A-1, page 9 (report page 6); Radke, Tr 81-82.

<sup>6</sup> See Tr 81-82.

<sup>7</sup> *Id.*

for each account, intended to show Staff's curve selections are unreasonable based on the SPR analysis.

In its briefs, MGU relies heavily on Mr. Watson's testimony. With one exception discussed below, Staff continues to advocate for the remaining life recommendations in its initial testimony. The Attorney General supports Staff's position.

MGU argues that implementing the depreciation rates with longer lives will create additional reserve deficiencies when assets are retired before they are fully accrued. MGU also challenges Staff's overall analysis with two general criticisms. Since these criticisms recur throughout MGU's account-by-account arguments, it is appropriate to address them initially.

To understand MGU's arguments, it is helpful to review Mr. Watson's workpapers in Exhibit A-5. These workpapers show Mr. Watson's SPR results for each of the disputed accounts. For each account, Mr. Watson fit the 28 Iowa curves to several data sets, ranging from a span of five years to a span of 50 years. Each page of the workpapers displays the "best-fit" curves for each of the 28 Iowa curve choices, which carries with it an average life, and a CI and REI as shown on that page. The "best-fit" curve for each of the Iowa curves uses the average life that minimizes the sum of the square differences between the actual and simulated plant balances produced by that curve.

First, MGU contends that Staff failed to conduct a proper SPR analysis because it considered only one or two years' worth of data in making its recommendations.

Mr. Watson testified:



The goal of SPR analysis is to find the most appropriate average life for an asset group, as well as the pattern of retirements around the average asset life, by comparing over multiple years the actual investment in the account to the calculated amount that would be in the account if the assets in the account had a specific average life. SPR analysis looks at calculated versus actual balances for a large number of years to determine which life “fits” best over different bands of years.<sup>8</sup>

He then testified that Mr. Radke’s analysis was not supported by depreciation theory or texts:

Unfortunately, for the fourteen (14) accounts he is recommending changes to, his focus is on a single year for nine accounts, and two years for five accounts. Mr. Radke does not look at assets groups over bands of years as is required in a proper SPR analysis. . . . As a result, Mr. Radke’s analysis is flawed, and his resulting recommendations are without legitimate support, as they will not allow MGUC to recover the remaining costs of its assets over their remaining lives.<sup>9</sup>

Staff responds that its study did consider all available data for each account.<sup>10</sup>

MGU’s criticism in this regard appears to take out of context Mr. Radke’s testimony for several of the accounts indicating that his preferred life and curve choice provides a better fit to the most recent plant balances. These recommendations, discussed in more detail in the account-by-account discussion below, reflect Mr. Radke’s judgment about how the average life and curve selection should be made, rather than any deficiency in his analysis. Note that Mr. Watson’s study similarly indicates that: “The blending of judgment concerning current conditions and future trends along with the matching of historical data permits the depreciation analyst to make an informed selection of an account’s average life and retirement dispersion pattern.”<sup>11</sup>

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<sup>8</sup> See Tr 42.

<sup>9</sup> See Tr 43.

<sup>10</sup> See Staff brief, page 3.

<sup>11</sup> See Exhibit A-1, page 9 (report page 6). See also the report’s discussion of judgment at pages 8-10.

That Mr. Watson did not really conclude Mr. Radke analyzed only one or two years of data is shown by his discussion elsewhere in his rebuttal testimony where he acknowledges that Mr. Radke reviewed best-fit curve selections for several bands of data.<sup>12</sup>

MGU's second general criticism is that Mr. Radke did not conduct a proper SPR analysis because his recommended average life for his recommended Iowa curve choice often differs from the average lives associated with the "best-fit" versions of that Iowa curve for each data band. Mr. Watson testified that Staff's analysis should be disregarded because the average life recommended with a given curve shape was not the average life that minimizes the sum of square differences between the simulated and actual plant balances for any of the particular data bands.<sup>13</sup> Yet a careful review of Mr. Watson's workpapers shows that his recommendations also can differ from the average life associated with the best-fit versions of the curve choice he recommends. This can be seen from a review of the company's recommendations for Accounts 352.4, 356.2, 367.1, 375.0 and 376, discussed in more detail below. This divergence from the average life associated with the "best fit" curve thus appears to represent a legitimate form of analyst judgment, rather than a deficient analysis. This is further seen from the account-by-account analysis below.

For these reasons, MGU's general claims are unpersuasive that Staff's analysis should be rejected as methodologically invalid. Instead, it is necessary to review the

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<sup>12</sup> See e.g. Watson, Tr 49 ["None of the bands analyzed by Mr. Radke indicate that a 51 year life minimizes the sum of the squared differences between the actual and the simulated balances. . . ."] And see Tr 50. Mr. Watson testified that he reviewed Staff workpapers, Tr 40, but he did not present those workpapers as part of his rebuttal testimony.

<sup>13</sup> See, e.g., Tr 46-47.

record for each account where the parties disagree on the appropriate life expectancy and curve to make a recommendation. In undertaking this review, it is worth noting that the parties both acknowledge moderation or “conservatism” as a factor guiding their judgment. Mr. Birkam explained this principle:

A conservative approach in changing lives and net salvage in a Depreciation Study refers to the tendency to doubt that a dramatic change is a permanent and sustainable change that will continue over the remaining life of the plant in question. This change could be in life characteristics, removal costs or salvage values. When this change occurs without some corresponding known change in technology or widespread permanent change in economics caused by new technology or advances in efficiency or some similar event, the principal of conservatism suggests that its permanence should be doubted, and a lesser change adopted. If this change continues to show in subsequent depreciation studies, it would then make more sense to assume that it was a permanent change, and should be adopted more fully.<sup>14</sup>

MGU finds Staff’s proposed adjustments to remaining lives too extreme, while as discussed in the context of net salvage, Staff recommends more modest adjustments to net salvage than the company is proposing.

#### Account 329

The \$85,000 balance in this account includes the cost of structures and improvements used in connection with natural gas production and gathering not accounted for in any of the other gathering plant accounts. The current approved depreciation for this account is based on an R4 curve with a life expectancy of 20 years.<sup>15</sup> MGU recommends adjusting the account to an R2.5 curve with a 36-year life

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<sup>14</sup> See Tr 93-94.

<sup>15</sup> “Average life” and “life expectancy” are used synonymously in this PFD.

expectancy, while Staff recommends an R2 curve with a 44-year life expectancy.<sup>16</sup> Mr. Watson indicated that his recommendation is based on the SPR analysis and the “current age of surviving assets,”<sup>17</sup> although he did not explain how the current age of surviving assets should be a factor. Mr. Radke testified that his recommendation “shows a closer simulated balance for 2008.”<sup>18</sup> In rebuttal, Mr. Watson challenged this testimony as an example of Staff using a “flawed single-year analysis.”

As explained above, this PFD rejects MGU's contention that Staff has employed a flawed single-year analysis in making its recommendations. Here, Mr. Radke is addressing the difference between the actual and simulated balances for 2008 that results from the company's curve choice, as shown graphically in Exhibit A-1.<sup>19</sup> While the simulated balances track the actual balances somewhat through 2006, particularly noticeable is the difference of approximately \$10,000, or approximately 10% percent, for 2007 and 2008.

A review of Mr. Watson's workpapers presented in Exhibit A-5 for this account shows a range of life expectancies associated with the various curves, with many significantly higher than the company's or Staff's selection.<sup>20</sup> The range of life expectancies for the R2.5 curve runs from 40.3 years for the five-year band, to 36 years for the longer 40 and 45-year bands. For the R2 curve recommended by Staff, the range of life expectancies runs from a high of 41.7 years to a low of 36.9 years. Once bands of data longer than five years are used in the SPR analysis, however, none of the

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<sup>16</sup> Mr. Radke's testimony refers to Account 366.1, but a review of Exhibit S-1, Schedule 3 shows he intended to refer to Account 329, and MGU has addressed this account accordingly in its rebuttal testimony and brief.

<sup>17</sup> See Exhibit A-1, page 20 (report page 17).

<sup>18</sup> See Radke, Tr 83.

<sup>19</sup> See Exhibit A-1, page 20 (report page 17).

<sup>20</sup> See Exhibit A-5, pages 3 to 11.

curves have a conformance index that indicates a particularly good fit. Except for two curves in the ten-year band not recommended by either party, the conformance indices for all of the curves outside the five-year band are considered “poor”.<sup>21</sup>

Although rejecting the claim that Staff employed a flawed single-year analysis in making its recommendation for this account, this PFD recommends that the Commission adopt MGU’s proposed curve and life expectancy for this account because the SPR analysis does not show any particularly good curve choices and it is reasonable to make the more moderate change in average life embodied by the company’s proposal.

#### Account 352.4

The \$2.4 million balance in this account includes the cost of well equipment and assets used in underground storage operations. The current approved depreciation for this account is based on an R4 curve with a 30-year life expectancy. MGU recommends adjusting the account to an R4 curve with a 40-year life expectancy, while Staff recommends an SO curve with a 47-year life expectancy. Mr. Watson indicated that based on his analysis, “the 31 R3 was [the] highest ranked curve with excellent REI,” but because there are no near-term plans to discontinue use of the assets, he recommended moving the life to 40 years but retaining the R4 dispersion.<sup>22</sup> Mr. Radke characterized the company’s proposal as based on judgment, and proposed the 47 SO as “the best fit for this account.”<sup>23</sup>

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<sup>21</sup> See Exhibit A-1, page 11 (report page 8).

<sup>22</sup> See Exhibit A-1, page 28 (report page 25).

<sup>23</sup> See Radke, Tr 83.

Turning to Mr. Watson's workpapers for this account, while they show the R3 curve has a high REI, they also show a low CI, in the "poor" category even for the five-year band.<sup>24</sup> For the R4 curve Mr. Watson recommends, as noted above, the "best-fit" R4 curves for each of the bands have life-expectancies ranging from 30.3 to 32.5 years, rather than the 40 years he selected. And the R4 curves have significantly lower CIs than the R3 curves. The 40-year R4 curve is shown graphically in Exhibit A-1 and reveals a significant gap between forecast and actual balances from 1991 to 2008.

The SO curve selected by Staff, however, has higher CIs in each of the bands, with both an acceptable CI of "fair" and a REI of "fair" for the five-year band. The life expectancies for the best-fit SO curves as shown in Mr. Watson's workpapers range from 38 to 44, slightly lower than the 47 years selected by Staff. The best-fitting curves in each band, however, have life expectancies on the order of 50 years, so Staff's 47-year selection does not appear outside the range of reasonableness. Given the company's recognition that it is appropriate to deviate from the SPR analysis, and the poor fit of the R4 curves generally as well as the 40-year R4 curve selected by the company, it is reasonable to accept Mr. Radke's recommendation that the 47 SO curve is the best fit for this category.

#### Account 353.2

The \$900,000 balance in this account includes the cost of well lines used in the company's underground storage operations. The current approved depreciation for this account is based on an R4 curve with a life expectancy of 30 years. MGU recommends

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<sup>24</sup> See Exhibit A-5, pages 72-79.

adjusting the account to an L3 curve with a 29-year life expectancy, while Staff recommends an L1 curve with a 40-year life expectancy.

Mr. Watson recommended the 29-year L3 curve as the highest ranked curve with excellent REI.<sup>25</sup> Mr. Radke recommended the 40-year L1 as “moving in the direction of the best-fit.”<sup>26</sup> The company’s rebuttal repeats its concern that Mr. Radke focuses only on a single year, and challenges Mr. Radke’s selection as not representative of the types of assets in this account, or in the range any other utility would use for this account. In its brief, MGU further argues that it is not clear from Mr. Radke’s testimony what his “ultimate best fit” is for this account.

As explained above, Staff’s concern that the curve selections come close to current actual balances should not be interpreted as a flawed reliance on a single year of data. Turning to Mr. Watson’s workpapers, labeled “account 353”, many of the curves indicate life expectancies significantly higher than 29 years.<sup>27</sup> Looking at the company’s recommended L3 curve, as shown in Mr. Watson’s workpapers, while for some bands the L3 curve has an “excellent” REI, for all bands it has a “poor” CI. The L1 curve has a better fit than the L3 curve in several of the bands, and unlike the L3 curve, has a CI that is “fair” rather than “poor” in the five-year band. The REIs for the L1 curves are also all above 50, putting them in the “good” category. While the life-expectancies associated with the L1 curve range from 34 to 37 and are thus below the 40-year life expectancy recommended by Staff, the L1 curve life expectancies are higher than the 29-year life expectancy chosen by the company. Because the company

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<sup>25</sup> See Exhibit A-1, page 30 (report page 27).

<sup>26</sup> See Tr 83.

<sup>27</sup> See Exhibit A-5, pages 80 to 87.

has failed to justify its choice of a curve with a poor conformance index, and a life expectancy significantly below better-fitting curves, this PFD recommends the Commission adopt Staff's recommendation as the better of the two choices.

#### Account 355.2

The \$675,000 balance in this account reflects the cost of measuring and regulating station equipment used for underground storage operations. The current approved depreciation for this account is based on an R3 curve with a life expectancy of 28 years. MGU recommends adjusting the account to an S5 curve with a 23-year life expectancy, while Staff recommends an L2 curve with a 41-year life expectancy.

MGU based its recommendation to lower the life expectancy for this account on its SPR analysis and its belief that increased use of electronics in the equipment will shorten the overall life of the assets in this account.<sup>28</sup> Mr. Radke testified that the best-fit lives are all greater than 40 years, and that Staff's recommended L2 curve has one of the best fits.<sup>29</sup> Staff indicated that if the company provided "solid evidence" supporting its claim regarding increased use of electronics, Staff would consider revising its recommendation.

In rebuttal, Mr. Watson responded instead by criticizing Staff's selection of a life expectancy for the L2 curve that is greater than the best-fit L2 curve for any of the bands.<sup>30</sup> He provided a chart showing that the best-fit L2 curves have life expectancies ranging from 33 to 38 years. He testified that his Exhibit A-5, pages 96 to 103, shows

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<sup>28</sup> See Exhibit A-1, page 32 (report page 29).

<sup>29</sup> See Tr 83-84.

<sup>30</sup> See Tr 46-47.



that MGU's proposal produces a better CI and REI for every band analyzed when compared to Staff's recommendation.

This PFD recommends that Staff's proposal be adopted for this account. Consistent with Staff's testimony, the best-fitting curves for each of the bands analyzed by Mr. Watson show significantly higher life expectancies of at least 50 in each band, with REIs still in the "fair" category. The company's rationale for reducing the existing 28-year life expectancy, that electronics are expected to shorten the life expectancy, reflects its judgment about the future, rather than its SPR analysis of past balances. The company did not provide additional support for this judgment as requested by Staff. Thus, Staff's recommendation appears more reasonable on this record than the company's recommendation.

#### Account 356.2

The \$1.1 million balance in this account includes the cost of purification equipment used in the company's underground storage operations. The current approved depreciation for this account is based on an R3 curve with an average life expectancy of 28 years. MGU recommends retaining this curve and life expectancy, while Staff recommends an L2 curve with a 62-year life expectancy.

The basis for MGU's recommendation as presented in Exhibit A-1 is that there has been only one recent retirement, and it believes recent additions have life expectancy consistent with existing assets.<sup>31</sup> Mr. Radke testified that Staff's choice is the fourth-best fit and fits better than the current curve. In rebuttal, MGU notes that Staff's proposal reflects a significant increase in the existing life expectancy, and

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<sup>31</sup> See Exhibit A-1, page 33 (report page 33).

characterizes it as well out of the range of reasonableness. Mr. Watson cited Cases Nos. U-15629 and 15699, which used life expectancies for purification equipment of 30 and 35 years respectively to set depreciation rates for Consumers Energy and Mich Con.<sup>32</sup> In its brief, MGU further asserts that Staff does not have the benefit the company does of field personnel and engineers with experience and insight regarding day-to-day use and condition of each asset group.<sup>33</sup>

Reviewing Exhibit A-5, the life expectancies shown for the R3 curve range from 44 to 48, although the REI values are low.<sup>34</sup> As discussed above, this is thus an example of the company recommending a life-expectancy for a curve that is not one of the best-fit curves of that type produced by the SPR analysis. Life expectancies for virtually all curves are significantly higher than 28 years, ranging from 37 to 150 years, although the REIs for most curves are poor.

The L2 curve recommended by Staff, while having the “fourth best” fit in Staff’s analysis, is very close to the R3 curve in Mr. Watson’s analysis, with life expectancies ranging from 53 to 59, somewhat lower than Staff’s recommended 62 year life. MGU dismisses a 62-year life as unreasonable, but has not established that a comparison to Consumers Energy’s or Mich Con’s depreciation rates for this category is relevant.

Based on the record, the company has not justified making no change in the average service life for this account. Merely because there has been only one recent retirement does not justify continuation of a life expectancy that is too low; likewise, that recent additions have been similar to existing assets says nothing about the true life

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<sup>32</sup> See Tr 47-48.

<sup>33</sup> See MGU brief, pages 16-17.

<sup>34</sup> See Exhibit A-5, pages 104-111.

expectancy of those assets. As a choice between the company's recommendation to continue the existing treatment, which appears significantly too low, and Staff's recommendation, which may be slightly too high, Staff's recommendation is the more reasonable.

#### Account 365.2

The \$700,000 balance in this account includes the cost of land rights acquired in connection with MGU's transmission operations. The current approved depreciation for this account is based on an R3 curve with a 50-year life expectancy. MGU recommends adjusting the account to an R4 curve with a 60-year life expectancy, while Staff recommends an S6 curve with a 68-year life expectancy.

MGU's recommended change in the depreciation curve for this account is based on its conclusion that the account history is insufficient to provide meaningful SPR results, and its belief that at a minimum, the life expectancy for the transmission right of way should match the life expectancy for the transmission mains that occupy the right of way.<sup>35</sup> Mr. Radke testified that Staff's choice of the S6 curve with a 68-year life expectancy has a better fit for the account. MGU contends that Staff's proposal is based on an invalid SPR analysis.<sup>36</sup>

A review of Exhibit A-5, pages 121-130, shows that all of the curves have extremely poor REIs, while the range of life expectancies for the best-fit curves are significantly higher than either Staff or the company recommend. For the R4 curves, the life expectancies range from 141 to 156 years; for the R3 curves, the life

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<sup>35</sup> See Exhibit A-1, page 35 (report page 32).

<sup>36</sup> See Watson, Tr 48, 41-45, and MGU brief at pages 17-18.

expectancies are over 400 years. The graph presented in Exhibit A-1 also shows a significant gap between the actual balances and the simulated balances using the company's recommended 60-year R4 curve.<sup>37</sup> As of 2008, the company's simulated balance of \$660,000 is \$70,000 below the actual balance, and appears to be diverging at an increasing rate. Staff's recommended S0 curve with a 68-year life expectancy is very close to the 67.1-year SO curves produced by MGU's SPR analysis.

The REIs in the valueless category support Mr. Watson's conclusion that the SPR account history is insufficient. It is still necessary, however, to set a depreciation rate for the transmission right of way. The company's judgmental choice of a 60-year life is based on the company's recommendation for transmission mains, which is in turn based on the company's recommended life for distribution mains. Staff's use of the SPR curves to inform its judgment is reasonable in comparison to the company's more circuitous reasoning. Since Staff has determined that its recommended S6 curve with a 68-year life expectancy is a better fit than the company's choice, this PFD recommends that the Commission adopt that recommendation.

#### Account 367.1

The \$32 million balance in this account includes the transmission mains which are primarily coated and wrapped steel. The current approved depreciation life for this account is based on an R4 curve with a 48-year life expectancy. MGU recommends adjusting the account to an R4 curve with a 60-year life expectancy, while Staff recommends an R5 curve with a 77-year life expectancy.

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<sup>37</sup> See Exhibit A-1, page 35 (report page 32).

Mr. Watson based his recommended 60-year R4 curve on his determination that the SPR analysis is of limited use for this account because few retirements have been recorded. He believes 48 years is too short based on his experience, and chose 60 years by analogy to distribution mains.<sup>38</sup> Staff agrees with the company that the life of transmission mains should at least equal the life of distribution mains, but believes a further increase is warranted for this account to achieve a better fit. MGU contends that a 29-year increase in this category is arbitrary and argues that Staff should have provided an engineering or technical basis to support such a significant increase.

Looking at the SPR results for the R4 curves, the average service lives in Mr. Watson's analysis for the best-fit R4 curves range from 81.5 to 84.3 years, with REIs in the "fair" range.<sup>39</sup> Looking at the R5 curve recommended by Staff, the average service lives for the best-fit R5 curves in Mr. Watson's analysis range from 71.3 to 75.1 years, with high CIs and REIs in the "good" to "excellent" category. Given these results, it is difficult to understand on this record why Mr. Watson recommends rejection of the SPR analysis.

Staff's recommended 77-year life expectancy with the R5 curve is only slightly above the results indicated in Mr. Watson's study, and well below the life expectancies indicated by other curves, including the R4. Thus, it appears there is a valid basis for Staff to select a curve with a 77-year life expectancy. Because the company's judgmental decision to recommend a 60-year life expectancy is difficult to evaluate and

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<sup>38</sup> As discussed below in connection with Accounts 376.1 and 376.2, the company does not provide much analysis of appropriate curve and average service life choice for distribution mains.

<sup>39</sup> See Exhibit A-5, pages 141-150.

because Staff's recommendation appears reasonable based on the available data, this PFD recommends that the Commission adopt Staff's selection.

### Account 369.3

The \$6.2 million balance in this account includes the cost of measuring and regulating station equipment used in connection with transmission operations. The current approved depreciation for this account is based on an R3 curve with a 35-year life expectancy. MGU recommends adjusting the account to an R4 curve with a 45-year life expectancy, while Staff recommends an R4 curve with a 51-year life expectancy. Mr. Watson testified that the SPR analysis shows a life range of 40 to 56 years, but he recommends a 45-year life for this account because one-third of recently added equipment is expected to have a shorter life than indicated in the SPR analysis.<sup>40</sup>

Staff's 51-year life was recommended by Mr. Radke, who testified it is the sixth-best fit in his study.<sup>41</sup> MGU's rebuttal objects to Staff's choice of a life expectancy for the R4 curve that is not one of the best-fit R4 curves shown in Mr. Watson's analysis.<sup>42</sup> His chart shows the range of average lives for the R4 curve is 44 to 49 years. As explained above, Staff's choice of an average life for a given curve that differs from the best-fit forms of that curve does not diminish Staff's analysis. But for this account, MGU's choice of life expectancy was made on the basis of exogenous information, the difference between recent additions and prior assets for this account. Staff has not addressed Mr. Watson's testimony that recent additions amounting to 32% of the account balance will have a shorter life than the study results indicate. For this reason,

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<sup>40</sup> See Exhibit A-1, page 38 (report page 35).

<sup>41</sup> See Radke, Tr 84.

<sup>42</sup> See Tr 49, 41-45. And see Exhibit A-5, pages 151-160.

this PFD recommends that the Commission adopt the company's proposed 45-year R4 curve for this account.

#### Account 375.0

The \$335,000 balance in this account includes the cost of structures and improvements used in the company's distribution operation. The current approved depreciation for this account is based on an R3 curve with a 36-year life expectancy. MGU recommends retaining the current treatment, while Staff recommends an L2 curve with a 63-year life expectancy.

The basis for MGU's recommendation is that this category principally consists of lighting. Since few retirements have been recorded, and no recent retirements, and because Mr. Watson concluded that the SPR results "are not indicative of the types of assets in this account", he recommended no change to the existing curve and life.<sup>43</sup> Staff instead recommended a 63-year L2 curve based on its SPR analysis. Mr. Radke testified that this curve has a very good fit. In rebuttal, MGU criticizes Staff's 75% increase in the life expectancy of this account, asserting that Staff should have provided engineering support for a change of this magnitude.<sup>44</sup>

A review of Exhibit A-5 shows that the life expectancies associated with the R3 curve are significantly higher than the 36 years selected by the company, centering around 50 years instead.<sup>45</sup> The L2 curve for each band has conformance indices above the R3 curve, while retaining good REIs.

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<sup>43</sup> See Exhibit A-1, page 40 (report page 37).

<sup>44</sup> See Tr 50.

<sup>45</sup> See Exhibit A-5, pages 162-171.

Since the SPR results reflect acceptable CIs and REIs, it is difficult to understand why Mr. Watson has rejected applicability of the SPR analysis. On rebuttal, he indicated that the company relied on its experience with other lighting assets to recommend no change, but provided no further analysis to support his claim that the SPR results are not indicative of the assets in the account.<sup>46</sup> Based on the limited information available on this record, it appears that some adjustment should be made to extend the average life used in determining the depreciation rate for this account. Since Staff has the only proposal that would do this, and since its recommended life of 63 years is only slightly above the SPR-indicated range of 58 to 60 years for the L2 curve in Exhibit A-5, this PFD recommends that the Commission adopt Staff's proposed modification.

#### Accounts 376.1 and 376.2

The \$104 million balance in these accounts includes the cost of steel and plastic distribution mains. The company and Staff both use combined data from these accounts to recommend a single average life and curve. The current approved depreciation for this account is based on an R3 curve with a 50-year life expectancy. MGU recommends adjusting the account to an R2 curve with a 60-year life expectancy, while Staff recommends an S4 curve with a 59-year life expectancy.

The company concluded that the life for the account is increasing, while also indicating there had been few retirements.<sup>47</sup> Mr. Watson did not provide additional analysis to support his choice of 60 years. Mr. Radke testified that the 59-year S4 curve

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<sup>46</sup> See Tr 50. Unlike Account 369.3, discussed above, MGU is not relying on information about the future that could not have been captured in the SPR analysis.

<sup>47</sup> See Exhibit A-1, pages 41 to 42 (report pages 38-39).



is a better fit, “particularly in recent years.”<sup>48</sup> MGU contends that Staff’s analysis is flawed because Mr. Radke did not recommend an average life that coincides with the average life of one of the best-fit S4 curves.<sup>49</sup>

Reviewing Exhibit A-5, many of the curves reflect life expectancies significantly above 60 years.<sup>50</sup> The best-fit R2 curve for each band has a life expectancy consistently above 60, ranging from 96.9 to 83.4. The range of life expectancies associated with the S4 curve recommended by Staff is 53.9 to 57.4 as captured in Mr. Watson’s analysis, only slightly below the 59-year life expectancy recommended by Staff. Comparing Staff’s and MGU’s recommendations, it is surprising that MGU criticizes Staff for recommending a life expectancy not associated with one of the best-fit S4 curves, when MGU has not explained why it departed much more dramatically from a life expectancy associated with any of the best-fit R2 curves. Because MGU has not supported its choice of an R2 curve with a 60-year life, while Staff’s analysis appears reasonable in relationship to the SPR analysis, this PFD recommends that the Commission adopt Staff’s 59-year S4 curve for these accounts.

#### Accounts 380.1 and 380.2

The \$56.5 million balance in these combined accounts includes the cost of steel and plastic distribution services. The current distribution rate is based on an R2 curve with a 40-year average life. The company proposes to move to a R1.5 curve with a 50-year life, while Staff recommends a 54-year R2 curve. In making its recommendation, MGU acknowledges the life is increasing, and recommends a 10-year increase with the

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<sup>48</sup> See Tr 85.

<sup>49</sup> See Tr 50-51, 41-45.

<sup>50</sup> See Exhibit A-5, pages 172-181.

change to R2 dispersion.<sup>51</sup> Staff initially believed data were available to evaluate the accounts separately, but subsequently acknowledged that its analysis of “Account 380.1” was really an analysis of the combined data, and that its analysis of “Account 380.2” was erroneous. Mr. Radke testified that Staff’s recommendation has an excellent fit. In rebuttal testimony, Mr. Watson again criticized Staff for not selecting an average life for the R2 curve from the best-fit R2 curves generated for the different bands of the SPR analysis. His chart showed the life expectancies associated with the best-fit R2 curves ranging from 49 to 58 years.

A review of Exhibit A-5, pages 192-201, shows that the life expectancies associated with the best-fit R1.5 curves range from 45.3 to 51.8 years, and that the R1.5 curve has higher CIs for each band than the R2 curve recommended by Staff. Staff has not addressed the company’s Exhibit A-5 analysis. While many of the curves shown in Exhibit A-5 for this account have higher CIs with “fair” to “excellent” REIs, because this is a large account, and because the parties have provided little additional analysis, the principle of moderation favors adoption of the company’s proposed modification.

#### Account 383.0

The \$14 million balance in this account includes the cost of domestic regulators. The current approved depreciation for this account is based on an S2 curve with a 37-year life expectancy. MGU recommends adjusting the account to an S1 curve with a 40-year life expectancy, while Staff recommends an R3 curve with a 40-year life expectancy. MGU acknowledges that a wide range of lives are exhibited in the SPR

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<sup>51</sup> See Exhibit A-1, pages 44-45 (report pages 41-42); Exhibit A-5, pages 212-221.

analysis, but concludes the majority are at or below 40 years.<sup>52</sup> Staff does not dispute the life choice, but contends that its recommendation does not show as much variance between actual and simulated balances over the last three years.<sup>53</sup> In rebuttal, MGU contends that its S1 curve produces a higher CI and a higher REI for every band analyzed, and it criticizes Staff for using a life expectancy with its recommended R3 curve that is not associated with one of the best-fit R3 curves in the company's Exhibit A-5. Mr. Watson's chart shows the range of life expectancies associated with the best-fit R3 curves is 37 to 38 years.<sup>54</sup> Both the S1 and R3 curves have high CIs and BEIs of 100%.

As explained above, this PFD concludes that Staff's analysis is not flawed because Staff recommends a curve with a life-expectancy not associated with the best-fit curves for that curve-type. MGU has not tied its own life recommendations strictly to the best-fit curves. Here, Staff has provided a cogent reason to depart from one of the curves shown in Exhibit A-5, that the fit is better for the recent time period using the R3 curve with a 40-year life expectancy. No party has demonstrated any physical properties of the assets in this account that would make one curve choice methodologically superior to another. For these reasons, this PFD recommends that the Commission adopt Staff's proposed 40-year R3 curve for this account.

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<sup>52</sup> See Exhibit A-1, page 47 (report page 44).

<sup>53</sup> See Radke, Tr 85.

<sup>54</sup> See Watson, Tr 53-54.

### III.

#### **NET SALVAGE**

As Mr. Birkam explained, the basic calculation for straight line depreciation is the original cost of plant less net salvage divided by the service life. Net salvage is the difference between any positive salvage value of an asset at retirement, and the costs associated with that retirement, which are referred to as removal costs. A positive net salvage value reduces the depreciable value of an asset. Correspondingly, when net salvage is negative for any given asset, i.e. when the costs of removal exceed any remaining value of the asset, the depreciable amount of the asset is increased. Under the traditional method of determining net salvage, salvage values minus removal costs in current dollars are estimated as a percentage of original plant costs.

FAS 143 imposes certain accounting requirements for the expected retirement obligations associated with certain assets (called “Asset Retirement Obligations” or “AROs”). In Case No. U-14292, the Commission considered the impacts of FAS 143 on public utilities in Michigan. In its order, the Commission recognized that “the computation and recovery of costs related to the retirement of long-lived assets can have a dramatic effect upon the expenses found to be appropriate for ratemaking purposes,”<sup>55</sup> and identified difficulties associated with the traditional method. The Commission directed the utilities to evaluate the use of different methods for handling retirement or removal costs. In subsequent cases addressing the treatment of removal

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<sup>55</sup> See Case No. U-14292 (June 26, 2007 order), page 2.

costs, however, the Commission has decided to retain the traditional net salvage method.

The threshold issue of the method the Commission should use in handling the costs associated with the retirement of assets is addressed in section A. Section B addresses the dispute between Staff and MGU over appropriate adjustments to the current net salvage rates using the traditional method of adjusting depreciable plant to account for net salvage costs.

A. Method

In accordance with the Commission's direction in Case No. U-14292, MGU in this case has provided an analysis of alternative treatments of removal costs in determining depreciation rates, including the inflation-adjusted method and a method based on FAS 143. MGU and Staff advocate that the Commission retain the traditional method, as it did in Cases Nos. U-15629 and U-15699, while the Attorney General asks the Commission to reconsider this choice.

Both Mr. Watson and Mr. Birkam testified on this issue. Mr. Watson presented the alternative analyses called for by the Commission in his Exhibits A-2 through A-4.<sup>56</sup> He testified:

The traditional method is the most appropriate method for setting depreciation rates in a regulated setting. It matches the costs of assets to the customers' use of assets on a straight-line basis and is a conservative estimate of the future cash flow requirements needed to remove the Company's assets at the end of their lives. This method has been used by nearly all utilities across the country for many years and it is backed by sound depreciation theory.<sup>57</sup>

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<sup>56</sup> See also Tr 31-37.

<sup>57</sup> Tr 33-34.

Mr. Birkam testified extensively on this topic, identifying seven reasons why the Commission should reject the FAS 143 method in favor of the traditional method.<sup>58</sup> Staff finds both the inflation-adjusted and FAS 143 methods too cumbersome, without benefit of greater precision. Staff also objects to the FAS 143 method for other reasons, including a determination that use of the method will not only cause intergenerational inequities, it will cause a considerable overcollection from ratepayers.

Reviewing the results of MGU's analysis in his brief, the Attorney General argues that depreciation rates calculated using the FAS 143 method result in the lowest depreciation rates and expense, and result in more just and reasonable rates.<sup>59</sup> He quotes the Commission's June 26, 2007 order in Case No. U-14292, at pages 32-33, recognizing deficiencies associated with the traditional method, which relies on a comparison of removal costs in today's dollars to assets valued at their original costs. Because MGU has projected future removal costs based on the historical ratios between original costs and related, actual removal costs for retired assets, he argues, the inflation rates included in those ratios should be used to develop present-value discounts over the assets' remaining lives for recovery of the projected future costs via current rates.<sup>60</sup>

Recognizing that the Commission has rejected this "FAS 143" approach in the cases presented so far, the Attorney General argues that these prior decisions do not constrain the Commission from adopting the method in this case. The Attorney

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<sup>58</sup> See Tr 101-110. Staff's recommendations are premised on moving utilities to Standard Retirement Units, discussed in section V.

<sup>59</sup> See Attorney General brief, page 8.

<sup>60</sup> See Attorney General brief, page 10.

General's brief, however, does not directly address Mr. Watson's or Mr. Birkam's testimony on this topic.

As the Attorney General argues, the Commission is always free to reconsider its choice of methodologies in fulfilling its statutory mandate to set just and reasonable rates. Because the Commission has considered this question recently in Cases Nos. U-15629, U-15699, U-16054 and U-16055, however, and because witnesses for Staff and MGU provided cogent testimony supporting use of the traditional method in this case, this PFD declines to recommend that the Commission reconsider the appropriate method for handling removal costs.

B. Net Salvage Rates

Applying the traditional method of determining net salvage, MGU's depreciation study proposed adjustments to the net salvage rates approved in Cases No. U-13393. Staff opposes the magnitude of the increases MGU is requesting for several accounts in which net salvage is negative, i.e. in which estimated removal costs exceed any positive salvage value for the assets at retirement, and advocates what it characterizes as a more conservative approach, increasing the negative net salvage rates by half the amount requested by MGU.

Net salvage rates for seven accounts are in dispute. In evaluating net salvage costs, MGU's study looks at data from 2000 to 2008. MGU's net salvage recommendations are reviewed for each account in Exhibit A-1, with supporting data in Exhibit A-1, Appendix D. Staff asserts that the quality of the data used in this analysis is uncertain, and references long-standing concerns regarding data expressed in Case

No. U-12395, when MGU was owned by Aquila.<sup>61</sup> Mr. Birkam testified on this topic on behalf of Staff. A chart showing current net salvage percentages, Staff's recommendations, and MGU's recommendations for all accounts is presented in Exhibit S-2, Schedule2.

In rebuttal testimony, Mr. Watson contended that the company's requested increases in the negative net salvage rates for these accounts already reflect a conservative approach. To address the data quality issue, he presented the data reviewed in his study for only the two years, 2007 and 2008, during which Integrys has owned MGU.

As discussed in more detail below, this PFD recommends that the Commission adopt Staff's more conservative increases in net salvage rates for the seven accounts at issue. The increases in negative net salvage rates, and thus in depreciable plant amounts, are significant, and are based on a small sample of data of uncertain reliability. MGU did not respond to Staff's concerns by establishing that the 2000 to 2008 data used in its study fully complies with all applicable requirements. The 2000 to 2008 data represent small volumes of retirements relative to the size of the accounts at issue; the 2007 to 2008 data alone could not reasonably be considered sufficient to justify the magnitude of the changes proposed.

While MGU argues that Staff inconsistently relies on the data to estimate remaining lives and Iowa curves, as discussed in section II above, Staff and the company considered the entire account history in making recommendations for the appropriate curves, not only data from 2000 to 2008. Moreover, the consequences of

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<sup>61</sup> See Tr 96-97; Case No. U-12395 (September 7, 2001 order) pages 1-2; Staff brief at page 6.



error in curve selection appear significantly less since the purpose of that calculation is to determine the number of years over which to spread the known cost of the assets in each account. In contrast, negative net salvage increases the cost of the plant recovered through depreciation.

Other concerns identified by the Commission in Case No. U-14292 also indicate a reason for a conservative approach to adjusting negative net salvage rates. In its decision in that case, the Commission recognized the impact of very small retirement units. Mr. Birkam's testimony on Standard Retirement Units in this case quotes from Mr. Aldrich's testimony in Case No. U-14292 explaining how the choice of retirement unit can have a significant impact on how removal costs are measured.<sup>62</sup> The Commission also recognized that the shift to smaller retirement units has had the effect of shifting costs from being recorded as maintenance expenses to being recorded as capitalized costs recoverable through depreciation, increasing the apparent cost of removal. MGU's data is based on retirement units of one linear foot for Accounts 367, 376 and 380, the largest accounts.<sup>63</sup> Mr. Watson acknowledges that the company's historical information does not permit it to analyze the impact of retirement units, although he did not believe moving to standard retirement units would have a material impact.<sup>64</sup>

Another reason to be cautious in adjusting net salvage rates in this case is that the historical measures do not clearly link retirement costs incurred in a period to the plant retired. In Mr. Aldrich's examples, presented in Staff's testimony, it is possible to

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<sup>62</sup> See Tr 99.

<sup>63</sup> See Birkam, Tr 98.

<sup>64</sup> See Watson, Tr 31-32.

connect removal costs to the original cost of the plant retired. MGU relies instead on ratios of removal costs to retirement costs in historical data. Mr. Watson testified that his use of moving averages adjusts for this effect: “Moving averages, which remove timing differences between retirement and salvage and removal costs, were analyzed over periods varying from one to nine years.”<sup>65</sup> But logically, the use of moving averages will mitigate but not necessarily remove such timing differences. For many of the accounts, the first year of data, the year 2000, reflects removal costs hundreds or thousands times greater than the retirement costs.

A discussion of the record evidence for each account is presented below.

#### Account 352.4.

The assets in this account include well equipment and assets used in underground storage operations. The current approved net salvage rate for this account is a negative 5%. The company recommends an increase to negative 25%, while Staff recommends an increase to a negative 15%. The company’s study indicates that “historical net salvage experience indicates up to a negative 40 percent net salvage.” Exhibit A-1, Appendix D shows only one retirement for this account, in 2002, with costs of removal shown for 2002 and 2004. The single retirement of \$46,692 is approximately 1.9% of the plant balance in the account; there is no information whether the costs in 2002 and 2004 totaling \$21,400 are costs associated only with the 2002 retirement. Nor is there any evaluation whether the costs in these two years should be considered typical of the costs the company will incur with retirements of assets in this account.

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<sup>65</sup>Exhibit A-1, page 57 (report page 54).

Because there is little information to support an increase of 20% in the depreciable amount for this account,<sup>66</sup> and because Staff's concerns regarding data quality have not been addressed, this PFD recommends that the Commission adopt Staff's more conservative adjustment of the net salvage rate.

#### Account 353.2

The assets in this account include the well lines used in the company's underground storage operations. The current approved net salvage rate for this account is negative 5%; MGU proposes to increase the negative net salvage rate to 10%, while Staff proposes to increase it only to 8%. As with Account 352.4 above, the company's study shows only one retirement (\$21,836 in 2002). While the removal costs incurred over a two-year period are 52% of the retirement amount (\$12,800), there is no information whether the retirement costs related to the retirement, or whether those costs are typical for retirements from this account. The \$22,000 retirement is approximately 2.4% of the \$.9 million plant balance.

Because there is little information to support an increase in negative net salvage for this account, and because Staff's concerns regarding data quality have not been addressed, this PFD recommends that the Commission adopt Staff's more conservative adjustment of the net salvage rate.

#### Account 367.1

The assets in this account include transmission mains which are primarily coated and wrapped steel. The current authorized net salvage rate for this account is negative

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<sup>66</sup> Put another way, the increase to negative 25% net salvage increases the amount to be depreciated in this account by 20% of \$2.5 million or \$500,000.

12%. The company proposes to increase this to a negative 25%, while Staff proposes a smaller increase to negative 18%. The company's study acknowledges that there have been few retirements in this account. Exhibit A-1, page 62, indicates that asbestos has been found in the coatings and will increase removal costs in the future. A review of Appendix D of Exhibit A-1 shows total retirements of \$53,240 over the period 2000 to 2008, with total removal costs of \$35,244, or 66%, over the same period. The total retirements represent .17% of the \$31.8 million plant balance in this account. Because the plant balance is so large, the company's proposal to increase the negative net salvage rate to 25% will increase the amount to be depreciated in this account by 13% of \$31.8 million, or \$4.1 million. Yet there is no evaluation of any of the removal costs presented that would link the costs to any particular retirement. And as explained above, Staff's concerns about the quality of data have not been addressed. The single retirement of \$17,000 and two-year removal costs of \$11,600 reflected in the data for the time period 2007 and 2008, identified in Mr. Watson's rebuttal testimony, are likewise insufficiently evaluated on this record to justify the \$4.1 million increase in costs to be depreciated for this account.

For these reasons, this PFD recommends that the Commission adopt Staff's more conservative increase in negative net salvage.

#### Accounts 376.1 and 376.2

The assets in these accounts are steel and plastic mains. While the company proposed to combine these accounts for purposes of setting asset retirement curves, the company proposes to set net salvage rates separately for each account. Data for each account and on a combined basis are presented in Appendix D to Exhibit A-1.

The current authorized net salvage rate for these accounts is negative 45%. MGU proposes to increase the negative net salvage rate for Account 376.1 to 80% and to increase the negative net salvage rate for Account 376.2 to 100%. Staff recommends rates of negative 63% and 73% respectively.

The company's rationale for establishing separate net salvage rates for these accounts is that asbestos has been found in the coatings of steel mains, which the company asserts will increase removal costs in the future, although it does not provide any analysis of the impact of this asbestos on expected removal costs.

Unlike the categories previously discussed, the company's recommendation in these accounts are close to the average ratios of removal costs to retirements over the time period 2000 to 2008. The company's study indicates that the cost of removal experienced in account 376.1 (steel) ranges from 76% to 98% over this time period. The total retirements were \$378,823; the total removal costs were \$355,216, or 94%. The total retirements over this period represent .5% of the \$27.4 million plant balance for Account 376.1 as of 2008. As with the other accounts, the company has not presented any analysis of the recent costs associated with any particular retirement. Yet increasing the net salvage rate from 45% to 80% for this account results in an increase of \$9.6 million, or 35% of the \$27.4 million balance, in the amount to be recovered through depreciation.

In response to Staff's concerns about the data quality, Mr. Watson's rebuttal also specifically noted that 2007 and 2008 results show removal cost ratios of negative 38% and negative 120% respectively, or an average of 80%. Staff's recommended net salvage value of 63%, which represents an increase of \$4.9 million in the depreciable

amount in this account, is within this range, and reflects a reasonable degree of conservatism given the limited information available.

The company's study indicates that the cost of removal experienced in Account 376.2 (plastic) ranges from 103% to 152%. The total retirements were \$173,611; the total removal costs were \$204,125, or 118%. The total retirements over this period represent .23% of the \$77 million plant balance for Account 376.2 as of 2008. As with the other accounts, the company has not presented any analysis of the recent costs associated with any particular retirement. Increasing the net salvage rate from 45% to 100% for this account results in an increase of \$42 million, or 55% of the \$77 million balance, in the amount to be depreciated.

In response to Staff's concerns about the data quality, Mr. Watson's rebuttal specifically noted that 2007 and 2008 results show removal cost ratios of negative 34% and negative 166% respectively, or a two-year cost ratio of 106%. Staff's recommended net salvage value of 73%, which represents an increase of \$21.6 million in the depreciable amount in this account, is within this range, and reflects a reasonable degree of conservatism given the limited information available.

#### Accounts 380.1 and 380.2

The assets in these accounts include steel and plastic distribution services. Mr. Watson's study states that generally this pipe is abandoned in place, but the company still incurs removal costs:

For pipe that is being replaced, activities such as isolating the old pipe, cutting the old pipe, purging or foaming the old pipe and capping the old pipe are charged as removal costs. When the pipe is not being replaced, in addition to the above activities, dispatching a crew, uncovering the

pipe, recovering the hold and repairing the surface are additional activities charged to removal cost.<sup>67</sup>

The current net salvage rate for these accounts is negative 50%. MGU proposes to double this to 100%, while Staff's proposal to reflect only half this increase results in a negative net salvage rate of 75%. The company's study indicates net salvage percentages ranging from 150 to 250 percent using retirements and removal costs between 2000 and 2008.

The total retirements for the combined accounts over the period were \$857,003; the total removal costs were \$1,381,509, or a ratio of negative 161%.<sup>68</sup> The retirements represent approximately 1.5% of the \$56.9 million in the combined 2008 plant balance for this account. As with the other accounts, there is no link made between removal costs and any particular retirement. And while Mr. Watson's study identified the kinds of costs that could be incurred, he did not explain what costs a typical retirement would involve. The company's proposed increase in the negative net salvage rate results in an increase of \$28.4 million in the amount to be depreciated in this account.

In response to Staff's concerns about data quality, Mr. Watson presented data for 2007 and 2008, showing removal cost to retirement ratios from 220% to 265%. But the amount of retirement in those two years was approximately \$180,000, or .3% of the 2008 plant balance, and again, there is no indication what retirements the removal costs in those two years related to.

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<sup>67</sup> See Exhibit A-1, pages 64-65 (report pages 61 to 62).

<sup>68</sup> See Appendix D of Exhibit A-1, page 6.

Staff's recommended net salvage value of 75%, which represents an increase of \$14.2 million in the depreciable amount in this account, reflects a reasonable degree of conservatism given the limited information available.

#### IV.

#### **GENERAL PLANT AMORTIZATION AND RESERVE DEFICIENCY**

MGU's application requests approval to change from depreciation to amortization accounting for certain general plant assets.<sup>69</sup> Accompanying its request, MGU seeks to amortize over five years a reserve deficiency of approximately \$2.5 million. Initially, Mr. Watson's testimony suggested that the reserve deficiency developed because the depreciation rates were based on depreciation lives that overestimated the lives of the assets in the account. He explained the term "reserve position" as follows:

The term "reserve position" refers to the difference between a theoretical reserve and the existing book reserve. If the theoretical reserve is greater than the book reserve, past depreciation has been inadequate compared to the depreciation parameters developed in the depreciation study, and an upward adjustment to the depreciation rate is required. If the opposite is true, a downward adjustment to the depreciate rate is required.<sup>70</sup>

He then testified as to the company's proposal for the amortizable general plant accounts:

The composite amortization rate for the amortizable General Plant group being requested for amortization has increased from 6.90% to 23.33%. The primary change impacting the amortization rates is the dramatically under accrued reserve position of these asset groups. The reserve requirement for these asset groups is \$2.6 million while the actual reserve is only \$130,000. The effect upon annual amortization expense is an

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<sup>69</sup> See Exhibit A-1, page 52 (report page 49). The accounts included in the request are Accounts 391, 393-395, and 397-398.

<sup>70</sup> See Tr 22.



increase of approximately \$57 thousand. The Company proposes to mitigate the effects of the deficit by recovering the unamortized net plant over a period of five years, resulting in an increase of expense of approximately \$501 thousand.<sup>71</sup>

Staff, through Mr. Birkam's testimony, took the position that the reserve deficiency was attributable to a time period prior to Integrys's acquisition of MGU from Aquila, and that the reserve deficiency should have been detected and dealt with as part of that transaction.<sup>72</sup> Nonetheless, Staff recommended that the Commission allow MGU to recover half of the reserve deficiency, and with a ten-year rather than five-year amortization.

On rebuttal, MGU presented the testimony of Mr. Watson and Mr. Baird on this topic. MGU established that a depreciation reserve of only \$180,000 existed for these accounts at the time of the transfer of ownership of MGU, and instead the depreciation reserve was largely due to MGU's decisions, following the sale, to replace certain radio equipment with laptops for field personnel, and also to consolidate certain mainframe computer equipment. MGU refers to these decisions as "operational changes", but made clear that the assets were retired notwithstanding that they still had useful life remaining.<sup>73</sup> MGU argued that these decisions, when made, were in the best interest of the ratepayers:

Although the affected assets (communications equipment and mobile radios) still had a remaining useful life, MGUC chose to replace them early due to other benefits of moving to laptops. This caused premature retirements of assets, resulting in a reserve deficiency for those accounts. MGUC believes the move to laptops was a cost effective move for its customers. MGUC should not be penalized for making a smart decision by forcing it to expense 50% of the resulting reserve deficiencies in the

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<sup>71</sup> Id.

<sup>72</sup> See Tr 95-96.

<sup>73</sup> See Watson, Tr 60.

Communications and Mobile Radio accounts due to that decision. Another example of a MGUC decision affecting the reserve is its consolidation of computing resources. By consolidating network computing, MGUC retired assets in the Mainframe Equipment account earlier than the useful life of those assets would require. Again, the Staff is recommending that MGUC expense hundreds of thousands of dollars because MGUC was making decisions that would reduce overall costs for customers.<sup>74</sup>

Mr. Watson also argued that recovery of a reserve deficiency was allowed for Mich Con in Case No. U-15699, and that some other state commissions allow recovery of a reserve deficiency. He equated recovery of the reserve deficiency for the amortized accounts to the self-correcting or “true-up” process that occurs for depreciated accounts as the remaining lives are continually readjusted based on the experience with the assets in those accounts. Indicating that the company has a reserve excess for other General Plant accounts in excess of the reserve deficiency in the amortized accounts, Mr. Watson argued that an alternative would be for the Commission to “realign” the company’s reserve positions, essentially allowing the company to offset the reserve deficiency with the larger reserve excess.<sup>75</sup>

In his brief, the Attorney General opposes all recovery of the reserve deficiency attributable to the company’s voluntary, premature retirement of these assets.<sup>76</sup> He looks back to Integrys’s purchase of Aquila and argues that in essence, Integrys knew or should have known that the assets it was purchasing did not have the value reflected in the company’s accounting records because they would have to be replaced.

Staff’s brief acknowledges the error in its initial assumption that the reserve deficiency arose while MGU was owned by Aquila. Because the company has identified

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<sup>74</sup> See Tr 60.

<sup>75</sup> See Tr 58-59.

<sup>76</sup> See Attorney General brief, pages 4-7.

the early retirement of assets with an otherwise remaining useful life, Staff argues that the company should have sought Commission approval of the early retirement in prior cases. To Staff, it appears Integrys booked the full value of equipment on acquisition of MGU, without the intent of using this equipment over its service life in existing rates. Staff concludes that the Commission should adopt Staff's initial proposal to allow the company to recover half the reserve deficiency with a ten-year amortization, or deny the company's request to recover the reserve deficiency entirely.<sup>77</sup>

MGU's arguments in its brief and reply brief rely heavily on Mr. Watson's testimony, discussed above.<sup>78</sup> MGU asserts that the decisions to retire these assets early, with useful life remaining, were reasonable and prudent and benefitted ratepayers, and thus the company should be allowed to recover the resulting reserve deficiency. MGU also argues that no one challenged its replacement or retirement of the equipment in its last two rate cases.<sup>79</sup> Characterizing the midlife replacements as "routine asset retirement", MGU argues that if the Commission does not want to permit full recovery of the reserve deficiency through the "true-up" mechanism it requests, then the Commission should consider the company's positive reserve position for other assets and permit recovery through a realignment of the company's reserves. To MGU, Integrys's acquisition of MGU and its due diligence obligations are irrelevant to the question of recovery of the reserve deficiency.

Reviewing the evidence, it is now undisputed that the reserve deficiency for the amortizable general plant accounts increased from \$180,000 to \$2.5 million in the two

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<sup>77</sup> See Staff brief, pages 4-6, 8.

<sup>78</sup> See MGU's brief, pages 25-29, and reply brief, pages 3-5, and 10-11.

<sup>79</sup> The company's last two rate cases were U-15549 and U-15990.

years following Integrys's acquisition of MGU principally because of MGU's decisions to retire equipment that still had a useful life. Not only is MGU seeking a five-year, \$501,000-per-year amortization of the reserve deficiency, the midlife retirements influenced MGU's selection of the proposed amortization period for the current assets, and resulted in the company's request to increase depreciation expense by \$58,000 attributable to the life changes.<sup>80</sup> Because the company's request to increase annual depreciation expense by approximately \$559,000 is linked to its request to use amortization accounting for certain General Plant accounts, and because both the amortization rates and the depreciation reserve reflect the significant influence of the early retirements, this PFD recommends that the Commission deny the company's request to amortize the general plant accounts at this time. Instead, MGU should be given an opportunity to seek recovery of the undepreciated amounts of the mobile radios and mainframe in its next rate case. The company should also be directed to present a request for amortization of the relevant General Plant accounts in its next depreciation case, removing the effects of the midlife retirements in determining the amortization period for the assets in those accounts.

First, it is important to note that this recommendation is not based on any finding that Integrys erred in its acquisition of MGU. Although the Attorney General and Staff look back to what Integrys may or should have known about these assets at the time of that acquisition, this PFD finds that MGU's explanation of the reserve deficiency makes the focus on Integrys largely irrelevant to the analysis of the treatment of the reserve deficiency. MGU could have made a decision to retire assets that still had a remaining

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<sup>80</sup> See Exhibit A-1, page 52 (report page 49); Watson, Tr 60, quoted in part above.

useful life even if its parent company remained the same, and there is no specific evidence on this record as to what Integrys intended when it made the purchase.

Since MGU has traced the remaining reserve deficiency to its retirement of the radio units and mainframe, however, evaluation of the requested recovery changes from a general question of how depreciation reserve deficiencies should be handled in a switch to amortization accounting, to the different question whether the company should be allowed to recover costs associated with specific assets that are no longer used to provide utility service. As explained above, MGU argues that recovery of the reserve deficiency through amortization is equivalent to the self-correcting or “true-up” approach used for the depreciated (nonamortized) accounts, as described by Mr. Watson.<sup>81</sup> Mr. Baird even contended in his rebuttal testimony that the reserve deficiency was attributable to errors by the Commission in estimating the useful life of the assets in the relevant accounts:

If the reserve deficiency results when too little depreciation has been recorded for a plant account based on its current or proposed remaining life, then the depreciation rates authorized by the Commission were set too low, or the assumed lives were too long. Mr. Birkam is suggesting Integrys is responsible for a reserve deficiency resulting from Commission approved depreciation rates and lives. By denying recovery of a portion of the reserve deficiency, Mr. Birkam is suggesting that Integrys or Aquila should be denied recovery of prudently incurred General Plant costs because the depreciation rates authorized by the Commission in the past were set too low, or too long of lives were used in the depreciation calculation.<sup>82</sup>

But the company’s voluntary decision to retire assets prior to the end of their useful life is logically unrelated to a determination of the useful life of those assets, or any assets remaining in the accounts after the retirement. There is no dispute that the retired

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<sup>81</sup> See Tr 59, 62.

<sup>82</sup> See Tr 71 (emphasis in the original).

assets had a remaining useful life, so the retirements do not indicate any error in the prior estimates of the useful life of those assets.

Because recovery of the reserve deficiency can no longer be premised on prior misestimation of the useful life of the assets, there is no “true-up” issue such as Mr. Watson described, and no inconsistency in treating MGU’s request to recover these costs differently from the way reserve excesses or deficiencies are generally handled in depreciation cases. Similarly, the reserve positions for other accounts are irrelevant to a determination whether the company should recover the undepreciated costs associated with the prematurely retired assets. The “realignment” of reserve positions suggested by Mr. Watson is one way of providing for recovery of a reserve deficiency once recovery has been determined to be appropriate, and is not a substitute for the necessary analysis of the underlying question whether recovery should be permitted.

Instead, whether the company can recover the costs associated with the retired assets is essentially a rate case question. While MGU characterizes the midlife retirements as “routine” in its reply brief, there is no evidence on this record that such retirements prior to the end of useful life are routine. Moreover, the magnitude of the retirements is substantial, resulting in a reserve deficiency of \$2.5 million in general plant accounts with a total 2008 plant balance of \$4.25 million. It is not appropriate in this depreciation case to accept MGU’s assurances, offered only in rebuttal testimony with no supporting analysis, that the ratepayers benefitted from the company’s decision.<sup>83</sup> Given that the reserve deficiency is attributable to specific retirements made prior to the end of the useful life of the assets, MGU should have disclosed this in

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<sup>83</sup> In fact, the record evidence on this point is limited to Mr. W’s testimony at Tr 60 and Mr. Baird’s testimony at Tr 69; it does not establish that the ratepayers received benefits sufficient to offset the costs associated with the old and new equipment.

seeking recovery of the reserve deficiency in the first place, rather than making it appear that the cost recovery was linked to the overestimate of the useful lives of the assets in these accounts.

Nor is it reasonable to conclude that the Commission or its staff should have objected to the company's decision-making at an earlier time. Even if the Commission had the opportunity to review the costs of replacement assets in prior rate cases, as MGU contends, that does not constitute a review of the claim MGU is making in this case, that ratepayers should pay both for the no longer used assets and the replacement or modernization costs caused by the operational change. Since MGU did not seek to recover the costs of the retired assets in either case, the prior rate cases cannot be viewed as providing even tacit approval of cost recovery in this case.

In arguing that the costs of its early retirement of assets could have been addressed in those cases, moreover, the company implicitly acknowledges that it could have sought recovery of those costs itself. The company could have presented an analysis to show that its decision to retire the radios and replace them with laptops was reasonable and prudent and that it was in the customers' best interest to continue to pay both for the retired equipment as well as the replacement equipment. Likewise, MGU could have asked to continue to recover costs associated with the retirement of the computer equipment by demonstrating cost savings to ratepayers even if they continued to pay for the old equipment no longer being used, as well as any costs associated with the operational change.

Nonetheless, because this depreciation case is not the appropriate place to evaluate the reasonableness and prudence of MGU's retirement decisions, and also

because the record is inadequate to make such an evaluation, this PFD recommends that the Commission allow MGU to present argument and analysis regarding the appropriate ratemaking treatment of the unrecovered costs associated with the mobile radios and mainframe in its next rate case. Since this PFD also recommends that the Commission reject the company's request to amortize General Plant Accounts 391.10, 391.22, 391.23, 391.30, 393.00, 394.00, 395.00, 397.10, 397.20, and 398.00 at this time, and that the company retain the previously approved depreciation rates for those accounts, a decision on any "reserve deficiency" can be reserved until after the Commission has had the opportunity to review MGU's rate case presentation.

## V.

### **STANDARD RETIREMENT UNITS**

Mr. Birkam presented Staff's testimony recommending that the Commission adopt standard retirement units (SRUs) for Michigan utilities. As discussed above in connection with the discussion of net salvage, Staff has explained the impact very small retirement units can have on the estimation of net salvage. Staff proposes the following standard retirement units: for Account 367, 50 linear feet; for Account 376, 50 linear feet; and for Account 380, one service line, main to meter.<sup>84</sup> Staff recommends that the standard retirement units be resolved in ongoing Case No. U-14812, with the expectation MGU could implement those standard retirement units in its next case.<sup>85</sup>

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<sup>84</sup> See Birkam, Tr 98.

<sup>85</sup> See Birkam, Tr 110.



Neither MGU nor the Attorney General opposes Staff's request. MGU states only:

MGUC is agreeable to deferring the issue of using SRUs as directed by the Commission in its April 27 Order [in Case No. U-14812], and will likely in the next rulemaking proceeding (or in a future rate proceeding) renew its position taken regarding the use of SRUs. Furthermore, any implementation date for the SRUs should coincide with the date of the final order issued in MGUC's next rate case so as to avoid the unintended consequence of shifting certain retirement units from capital or O&M expense outside of a final rate order.<sup>86</sup>

The Attorney General indicates it supports Staff's proposal.<sup>87</sup>

In its April 27, 2010 order in Case No. U-14812, the Commission stated:

In response to MEGA's comments regarding retirement units, the Commission notes that it shall address retirement units in a subsequent order. Once all utilities have completed depreciation cases as required by the September 25, 2007 order in Case No. U-14292 et al., the Commission shall consider including retirement units in future updates to these rules.<sup>88</sup>

This PFD thus finds the Commission has indicated that it will address standard retirement units in Case No. U-14812, and that it is appropriate to allow the Commission's work in that case to be completed, as Staff recommends, thus deferring a decision on standard retirement units in this case.

## VI.

### **CONCLUSION**

For the reasons set forth above, this PFD recommends that the Commission revise the Iowa curve choices and remaining life estimates used to calculate

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<sup>86</sup> MGU reply brief, pages 13-14.

<sup>87</sup> See Attorney General brief at page 7.

<sup>88</sup> *Id.*, page 15.

depreciation rates for each of the disputed accounts as indicated above. This PFD further recommends that the Commission retain the traditional method of determining net salvage costs, and adopt the net salvage rates recommended by Staff. Further, this PFD recommends that the Commission defer MGU's request for amortization of certain General Plant accounts to its next depreciation case, retaining the currently established depreciation rates for those accounts in the interim. Related to this recommendation, this PFD recommends that MGU be given an opportunity, in its next rate case, to argue for recovery of costs associated with the midlife retirements of certain assets. Finally, this PFD recommends that Standard Retirement Units be addressed as Staff requests in Case No. U-14812.

The depreciation rates resulting from the recommendations in this PFD are presented in Attachment A, which modifies Staff's Exhibit S-1, Schedule 1 to reflect the lowa curves and remaining life estimates recommended by this PFD for Accounts 329, 369.3, 380.1 and 380.2, and retains the currently-authorized depreciation rates for the amortizable General Plant accounts.

STATE OFFICE OF ADMINISTRATIVE  
HEARINGS AND RULES  
For the Michigan Public Service Commission

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Sharon L. Feldman  
Administrative Law Judge

August 6, 2010  
Lansing, Michigan  
dmp

Case No. U-15693  
Attachment A  
Based on Staff Exhibit S-1, Schedule 1, with revisions proposed in PFD

Account	Plant	Accum	Existing				PFD Recommendation					
	Balance 2008	Depr 2008	ASL/ Curve	NS %	Rate %	Accrual \$	ASL/ Curve	NS %	Remain Life	Remaining to Accrue	Rate %	Accrual \$
GATHERING PLANT												
329.0 Other Struct & Improvements	87,403	53,242	27-R4	-5.0%	26.87	23,485	36-R2.5	-5.0%	21.1	38,532	2.09%	1,828
331.0 Well Equipment	5,150	5,407	27-R4	-5.0%	31.59	0	45-R4	-5.0%	9.6	-	0.00%	0
332.0 Field Lines	41,943	44,040	20-R4	-5.0%	32.56	0	35-R4	-5.0%	7.4	-	0.00%	0
333.0 Field Compressor Station Equip	115,824	115,758	20-R4	0.0%	61.87	66	40-R4	0.0%	9.7	66	0.01%	7
334.0 Field M & R Station Equip	2,051	1,824	20-R4	0.0%	10.30	211	40-R4	0.0%	10.6	227	1.05%	22
336.0 Purification Equipment	22,055	20,529	20-R4	0.0%	10.19	1,526	30-R4	0.0%	8.1	1,526	0.86%	190
337.0 Other Equipment	9,961	9,961	15-R4	0.0%	46.58	-	24-S6	0.0%	3.6	-	0.00%	0
	<u>284,387</u>	<u>250,761</u>			8.89	<u>25,288</u>					0.72%	<u>2,047</u>
UNDERGROUND STORAGE PLANT												
350.6 Rights of Way	2,455	2,455	30-R3	0.0%	4.27	105	40-SQ	0.0%	4.85	0	0.00%	0
351.0 Structures and Improvements	281,823	256,425	30-R4	-5.0%	4.06	11,442	37-R4	-5.0%	12.00703	39,489	1.17%	3,289
352.2 Reservoirs	95,267	95,157	30-R4	0.0%	4.91	4,678	40-R4	0.0%	7.97	110	0.01%	14
352.4 Wells	2,474,792	2,115,589	30-R4	-5.0%	3.94	97,507	47-SO	-15.0%	29.4	730,422	1.00%	24,748
352.5 Leaseholds	1,666,932	1,143,230	30-R4	0.0%	3.61	60,176	40-R4	0.0%	20.21	523,702	1.55%	25,913
353.2 Lines	897,299	521,799	30-R4	-5.0%	3.76	33,738	40-L1	-8.0%	25.5	447,284	1.95%	17,497
354.2 Compressor Station Equipment	3,018,921	932,889	28-R3	0.0%	3.99	120,455	25-L4	0.0%	14.03	2,086,032	4.92%	148,673
355.2 M & R Station Equipment	676,304	409,904	28-R3	0.0%	3.76	25,429	41-L2	0.0%	25.2	266,400	1.56%	10,550
356.2 Purification Equipment	1,074,934	471,249	28-R3	0.0%	3.81	40,955	62-L2	0.0%	48.9	603,685	1.15%	12,362
357.1 Other Equipment	18,594	5,284	28-R3	0.0%	4.03	749	28-R3	0.0%	7.81	13,310	9.17%	1,705
358.0 Non_Current Gas	1,033,000	0	-	0.0%	-	-	40-SQ	0.0%	13.52	1,033,000	7.40%	76,442
	<u>11,240,321</u>	<u>5,953,981</u>			3.52%	<u>395,234</u>				<u>5,743,434</u>	2.86%	<u>321,193</u>
TRANSMISSION PLANT												
365.2 Rights of Way	726,824	539,911	50-R3	0.0%	1.84	13,374	68-S6	0.0%	28.8	186,913	0.89%	6,469
366.1 Structures & Improvements	49,354	44,845	33-R4	-5.0%	2.57	1,268	37-R1	-5.0%	15.35	6,977	0.92%	454
367.1 Mains	31,802,316	19,980,627	48-R4	-12.0%	2.24	712,372	77-R5	-18.0%	50.6	17,546,105	1.09%	346,645
369.3 M & R Station Equipment	6,228,999	4,629,752	35-R3	-15.0%	3.13	194,968	45-R4	-15.0%	27.1	2,533,596	1.50%	93,435
	<u>38,807,493</u>	<u>25,195,135</u>			2.38%	<u>921,982</u>				<u>20,273,591</u>	1.15%	<u>447,003</u>
DISTRIBUTION PLANT												
374.1 Rights of Way	179,159	14,156	55-S3	0.0%	1.37	2,454	60-R2	0.0%	55.93	165,003	1.65%	2,950
375.0 Structures & Improvements	334,831	198,363	36-R3	-5.0%	2.69	9,007	63-L2	-5.0%	48.6	153,210	0.94%	3,147
376.1 Steel Mains	27,439,247	22,417,702	50-R3	-45.0%	2.08	570,736	59-S4	-63.0%	38.4	22,308,270	2.12%	581,712
376.2 Plastic Mains	76,751,021	32,709,044	50-R3	-45.0%	2.46	1,888,075	59-S4	-73.0%	38.4	100,070,224	3.40%	2,609,535
378.0 M & R Station Equip	4,215,315	2,764,456	28-R2	-25.0%	3.72	156,810	29-R0.5	-25.0%	16.15	2,504,687	3.68%	155,103
379.0 City Gate	230,440	-119	-	0.0%	1.47	3,387	29-R0.5	0.0%	28.69	230,559	3.49%	8,036
380.1 Steel Services	7,473,516	7,377,260	40-R2	-50.0%	2.55	190,575	50-R1.5	-75.0%	24.2	5,701,393	3.15%	235,416
380.2 Plastic Services	49,382,350	24,518,949	40-R2	-50.0%	3.08	1,520,976	50-R1.5	-75.0%	38.0	61,900,164	3.30%	1,629,618
381.0 Meters & Installations	30,415,309	14,669,757	38-S1	0.0%	2.41	733,009	45-R1.5	0.0%	30.83	15,745,553	1.68%	510,800
383.0 House Regulators	13,663,884	4,123,952	37-S2	0.0%	2.54	347,063	40-R3	0.0%	27.4	9,539,932	2.55%	348,429
385.0 Industrial M & R Equipl	547,658	249,098	28-R1.5	-10.0%	3.55	19,442	28-R1.5	-10.0%	22.64	353,326	2.85%	15,608
	<u>210,632,729</u>	<u>109,042,616</u>			2.58	<u>5,441,535</u>				<u>218,672,321</u>	2.90%	<u>6,100,354</u>

Case No. U-15693  
Attachment A  
Based on Staff Exhibit S-1, Schedule 1, with revisions proposed in PFD

GENERAL PLANT

390.0 Structures												
392.1 Transportation	10,202,760	4,174,093	35-R4	0.0%	3.08%	314,245	35-L0	12.0%	27.31	4,804,336	1.72%	175,919
392.2 Trailers	2,838,236	458,938	-	0.0%	11.38%	322,991	7-SQ	20.0%	5.15	1,811,651	12.39%	351,777
392.4 Trailers	198,780	93,641	-	0.0%	3.40%	6,759	30-SQ	20.0%	18.77	65,383	1.75%	3,483
392.5 Trailers	31,724	24,832	-	0.0%	4.29%	1,361	25-SQ	0.0%	9.08	6,892	2.39%	759
396.0 Power	111,270	1,981	-	0.0%	3.32%	3,694	20-SQ	0.0%	19.43	109,289	5.06%	5,625
397.3 Dispatch	1,212,428	531,503	-	20.0%	5.83%	70,685	17-L0	25.0%	12.88	377,818	2.42%	29,334
	1,552,289	846,893	15.2-S3	0.0%	7.43%	115,335	12-L2	0.0%	5.71	705,396	7.96%	123,537
	16,147,487	6,131,881			5.17%	835,070				7,880,765	4.28%	690,433

GRAND TOTAL	<u>277,112,417</u>	<u>146,574,375</u>			<u>2.75%</u>	<u>7,619,108</u>				<u>252,570,111</u>	<u>2.73%</u>	<u>7,561,030</u>
Without Amort Plant												

Amortizable General Plant at current depreciation rates

391.10 Office Furniture & Equipment	501,412				5.78	28,982					5.78	28,982
391.22 Mainframe Equipment	28,264				14.38	4,064					14.38	4,064
391.23 PC Equipment	622,429				14.38	89,505					14.38	89,505
391.30 Data Handling Equipment	88,359				5.78	5,107					5.78	5,107
393.00 Stores Equipment	70,672				5.96	4,212					5.96	4,212
394.00 Tools, Shop & Garage Equipment	1,534,525				4.71	72,276					4.71	72,276
395.00 Laboratory Equipment	282,024				3.40	9,589					3.40	9,589
397.10 Communication Equipment	379,133				7.43	28,170					7.43	28,170
397.20 Mobile Radio Equipment	34,829				7.43	2,588					7.43	2,588
398.00 Miscellaneous Equipment	12,472				4.71	587					4.71	587
	<u>3,554,119</u>					<u>245,080</u>						<u>245,080</u>

Total Depreciable Gas Plant	<u>280,666,536</u>				2.80	<u>7,864,188</u>					2.78%	<u>7,806,110</u>
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Land	1,412,625											
303.00 Software	271,233											
Total Gas Plant	<u>282,350,394</u>											

Case No. U-15693  
Attachment B

Stipulated Explanation of Retirement Experience Index

One of the purposes of depreciation studies is to predict or forecast the timing when various current assets will be retired in the future. This is done by using standardized survivor ("Iowa") curves, which are used to perform Simulated Plant Record ("SPR") calculations.

One of the goals of this process is to develop projections that will be as accurate as possible, even though no projection is likely to exactly match actual future retirement experience.

The "Retirement Index" or "Retirement Experience Index" ("REI") measures the past accuracy of the Iowa Curves to historical data. The REI is used as a tool to evaluate the probable accuracy of the Iowa Curves being used to forecast future retirements of assets in various plant accounts.

The REI measures the maximum percent of the Iowa Curves to be used in SPR calculations. As the record of historical retirement information in a plant account matches more of the length of the Iowa curve, then more information from the Iowa Curve can be used to project future retirements, and therefore the more representative the match between calculated and actual balances. The REI is used to measure the relative levels of these matches to identify the probability of accuracy.

Below are excerpts from the National Association of Regulatory Utility Commissioners publication Public Utility Depreciation Practices which described the REI more fully:

The REI associated with a retirement dispersion pattern is the percentage of installations from the oldest vintage that would have retired by the end of the most recent year in the chosen band of years if the installations retired according to the specified survivor curve. The higher the REI the more assurance that a unique retirement pattern was used in the SPR simulation."<sup>1</sup> "The maturity of the account is measured by the Retirement Experience Index. (REI)."<sup>2</sup> "In 1947, Bauhan proposed a scale to rank the REI and CI from poor to excellent."<sup>3</sup>

"An REI of 100% indicates that a complete survivor curve was used in the simulation. Bauhan proposed the following scale for the REI:

<u>REI</u>	<u>Value</u>
Over 75	excellent
50 to 75	good
33 to 50	fair
17 to 33	poor
under 17	valueless

An REI less than 100%, say x%, indicates that a survivor curve truncated a (100-x)% surviving was used. The higher the REI, the longer the curve and, since Iowa curves becomes more differentiated with age, the more assurance that a unique curve pattern was used on the simulation."<sup>4</sup>

In other words, the REI is used to explain a relative level of the reliability of an Iowa Curve being used for a given plant account.

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<sup>1</sup> Page 324

<sup>2</sup> Page 81

<sup>3</sup> Page 92, further explanation and Rankings for REI and CI are found in Watson, Exhibit A-1, pages 6-8.

<sup>4</sup> Page 97